

What is claimed is:

1. A method comprising:

receiving a packet at a proxy node in a system area
network from a first node that generated the packet using a
5 first protocol;

translating the packet using a second protocol used by
a second node; and

sending the translated packet from the proxy node to
the second node.

10

2. The method of claim 1 wherein translating the packet
comprises translating a single packet into multiple packets
and wherein sending the translated packet comprises sending
several translated packets.

15

3. The method of claim 1 wherein receiving the packet
comprises receiving multiple packets, translating the
packet comprises translating the multiple packets into a
single packet and sending the translated packet comprises
20 sending the single translated packet.

4. The method of claim 1 wherein the first protocol is
based on Transmission Control Protocol/Internet Protocol

(TCP/IP) and the second protocol is based on a lightweight protocol.

5. The method of claim 1 wherein the first protocol is
5 based on a lightweight protocol and the second protocol is
based on Transmission Control Protocol/Internet Protocol
(TCP/IP).

6. The method of claim 1 wherein the first node comprises
10 a network client coupled to the proxy node through a
network node, and the second node comprises an application
node.

7. The method of claim 1 wherein the first node comprises
15 an application node and the second node comprises a network
client coupled to the proxy node through a network node.

8. A method of protocol processing comprising:
receiving a packet at a proxy node in a system area
20 network from a first node that generated the packet using a
first protocol wherein the packet is addressed to a second
node in the system area network that uses a second
protocol;

processing the packet in the proxy node; and

sending a response from the proxy node to the first node using the first protocol.

9. The method of claim 8 wherein the first protocol is
5 based on Transmission Control Protocol/Internet Protocol (TCP/IP) and the second protocol is based on a lightweight protocol.

10. The method of claim 8 wherein the first protocol is
10 based on a lightweight protocol and the second protocol is based on Transmission Control Protocol/Internet Protocol (TCP/IP).

11. A system area network comprising:
15 a network node;
a proxy node;
an application node; and
a network client;
wherein the proxy node comprises a processor
20 configured for:

receiving a first packet from the network client through the network node addressed to the application node using a first protocol; and

if the first packet meets a specified criterion, translating the first packet using a second protocol used by the application node, and sending the translated first packet to the application node.

5

12. The system area network of claim 11 wherein the proxy node processor is further configured for processing the first packet if the first packet does not meet the specified criteria.

10

13. The system area network of claim 12 wherein the proxy node processor is further configured for sending a response to the network client through the network node using the first protocol.

15

14. The system area network of claim 11 wherein the proxy node processor is further configured for receiving a second packet from the application node addressed to the network client using the second protocol;

20

if the second packet meets a specified criterion, translating the second packet using the first protocol and sending the translated second packet to the network client through the network node.

TELETYPE - 412-239-00

15. The system area network of claim 14 wherein the proxy node processor is further configured for processing the second packet if the second packet does not meet the specified criteria,.

5

16. The system area network of claim 15 wherein the proxy node processor is further configured for sending a response to the application node using the second protocol.

10 17. The system area network of claim 11 wherein the first protocol is based on Transmission Control Protocol/Internet Protocol (TCP/IP) and the second protocol is based on a lightweight protocol.

15 18. The system area network of claim 11 further comprising a plurality of network nodes, a plurality of proxy nodes and a plurality of application nodes, and a plurality of network clients wherein each proxy node comprises a respective processor configured for:

20 receiving an input packet from one of the network clients through one of the network nodes addressed to a particular one of the application nodes using a first protocol; and

if the input packet meets a specified criterion, translating the input packet using a second protocol used by the particular application node, and sending the translated input packet to the particular application node.

5

19. The system area network of claim 18 wherein each network node comprises a processor configured for performing load balancing among the proxy nodes based on protocol processing requirements.

10

20. The system area network of claim 18 wherein the proxy node processors are further configured for performing load balancing among the application nodes based on application processing requirements.

15

21. An apparatus comprising:

a plurality of network ports; and

a processor configured for:

receiving through one of the network ports a

20 first packet from a network client through a network node in a system area network that generated the first packet using a first protocol; and

if the first packet meets a specified criterion, translating the first packet using a second protocol used

by an application node and sending the translated first packet through one of the network ports to the application node.

5 22. The apparatus of claim 21 wherein the processor is further configured for processing the first packet and sending a response to the network client through the network node using the first protocol if the first packet does not meet the specified criterion.,.

10

23. The apparatus of claim 21 wherein the processor is further configured for:

receiving a second packet through one of the network ports from the application node using the second protocol;
15 if the second packet meets a specified criterion, translating the second packet using the first protocol and sending the translated second packet to the network client through the network node.

20 24. The apparatus of claim 23 wherein the processor is further configured for processing the first packet and sending a response to the application node using the second protocol if the second packet does not meet the specified criteria.,

25. The apparatus of claim 21 wherein the processor is further configured for performing load balancing among application nodes connected to the network ports based on 5 application processing requirements.

26. The apparatus of claim 21 wherein the first protocol is based on a lightweight protocol and the second protocol is based on Transmission Control Protocol/Internet Protocol 10 (TCP/IP).

27. The apparatus of claim 21 wherein the first protocol is based on Transmission Control Protocol/Internet Protocol (TCP/IP).

15
28. An article comprising a computer-readable medium that stores computer executable instructions for causing a computer system to:

receive a first packet at a proxy node in a system 20 area network from a network client through a network node using a first protocol;

if the first packet meets a specified criterion, translate the first packet using a second protocol used by

an application node and send the translated first packet to the application node.

29. The article of claim 28 further comprising
5 instructions for causing the computer system to process the first packet and send a response to the network client through the network node using the first protocol if the first packet does not meet the specified criterion.,

10 30. The article of claim 28 further comprising
instructions for causing the computer system to:
receive a second packet at the proxy node from the application node using the second protocol;
translate the second packet using the first protocol;
15 and
send the translated second packet to the network client through the network node.